

# AMERICAN FRUIT GROWER



DECEMBER  
1931

BRINGING BACK THE CHESTNUT  
WINTER WARFARE ON ORCHARD ENEMIES  
CROP REPORT COMMENTS

TEN  
CENTS  
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## BEES ARE ESSENTIAL TO FRUIT GROWERS

By KENNETH STALCUP

COLONIES of bees are distributed through the Troth orchards in Orange county, Indiana, so that the bees from one hive will not have to fly more than five apple tree-rows each way until they meet the bees from another hive.

"To be sure of a heavy set of apples every year it is necessary to have one colony of bees to three acres," said R. A. Troth. "In normal years the blossoms stay on for two or three weeks to give the bees ample opportunity to do their work. As soon as the apples have set, the bees are removed from the orchard. Spraying and dusting are harmful to bees. Bees are also easier taken care of when all of them are in one place."

If the weather is warm and sunny while the trees are in bloom, the bees will pollinate the entire orchard in one day. They will not come out of the hive until the temperature is at least 50 degrees Fahrenheit. Neither will they fly much if the weather is cool or damp. The hotter the day the better they work.

"A few varieties of apples do not need bee pollination," explained Mr. Troth. "Although the Grimes Golden, Jonathan, Ben Davis, Golden

Delicious, and Rome Beauty pollinate themselves, they do not do as good a job as when aided by bees. All of the Winesap family and the Delicious cannot pollinate themselves."

Bees do not require much of a fruit grower's time. If double hives are used, the swarming tendency will be greatly curtailed. A single colony may store, from fruit bloom and clover, from 50 to 200 pounds of honey, which will be worth at least 15 cents a pound. Sometimes in very poor seasons the bees will not make their own living, and it is necessary to feed them sugar syrup to prevent them from starving.

Several years ago Mr. Troth rented colonies for the season at \$5 a hive, but he did not find this very satisfactory. He was not always sure of securing the bees when he needed them. He started with a few colonies, gradually adding more until he reached his present number of 80.

Fine results can be secured by placing bouquets of fruit blossoms near the hives for the bees to work upon. The bees prefer Grimes Golden to any other variety. This affords an excellent way of securing plenty of blossoms for pollinating.

## 500 STRAWBERRY HYBRIDS AT BELL STATION



George F. Waldo, assistant pomologist (left), and Dr. Eugene C. Auchter, principal horticulturist of the United States Department of Agriculture, sampling some of the hybrid strawberries grown at the department's field station at Bell, Md. Recently a group of 50 strawberry growers and staff members of the department attended the first annual Field Day at Bell, and inspected the small fruit breeding work. Approximately 500 hybrids of strawberries are now growing at the station. The Blakemore strawberry, which is proving unusually popular in the Southeast, is a creation of Dr. George M. Darrow and George F. Waldo, department pomologists, and was bred at Bell.

## Test Strawberries Under Artificial Light

WITH THE AID of powerful electric lamps to lengthen the day in the greenhouse in the winter, plant breeders of the United States Department of Agriculture are attempting to determine the adaptability of new varieties of strawberries to the various strawberry-growing sections of the country. Since the length of day varies with the latitude, they believe these tests will indicate approximately the regions to which the newly developed varieties are adapted. Heretofore it was necessary to send all new varieties to the field stations in all different regions

to determine their adaptability by special tests.

G. M. Darrow and G. F. Waldo, department pomologists, think this method of testing all new varieties under artificial light may save much time and effort by securing some fairly definite indication of the region to which each new variety may be adapted before sending it to a field station for further trial.

Willie: "Pa, what's a garden plot?"

Pa: "The bugs and worms planning to eat your stuff up."



# AMERICAN FRUIT GROWER

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NUMBER 12

## PRUNING WITH AX AND DYNAMITE

AS THE season for orchard pruning draws on, the fruit grower will give serious thought to the total elimination of orchard trees which for any reason do not produce profitable crops.

True, the destruction of an apple tree is an act not lightly to be undertaken. An old tree is to the grower like an old friend. It may be behind-hand in good works, as measured by fruitful production, and still reflect the traits of friends and neighbors whose society we not only tolerate but enjoy.

But like the dairyman who disciplines his affection for such of his kine as reciprocate not in yield of butterfat, so must the fruit grower confine his care to the trees that require his efforts with merchantable fruit.

Any one of a variety of conditions, each without practical remedy, may make the removal of a tree a matter of proper orchard management.

Inferior and unpopular varieties is a practically incurable condition in the case of millions of fruit trees, particularly in the case of apples. In some cases this condition may be overcome by top-working, but in the majority of cases the trees are too large for such a remedy to be profitably affected.

Old trees, and even whole orchards, that have suffered successive seasons of neglect are not likely to be brought back into profitable production. This condition is customarily aggravated by the presence of other conditions that act as a bar to profitable production, such as undesirable varieties, unfavorable location, inadequate water supply, to name but a few.

An orchard may occupy an unsuitable location, one in which a mature tree cannot produce fruit in profitable quantities. A "frosty" site, one where crops can be harvested only in years lacking late spring frosts, is a prolific source of loss to the owner. The periodic bountiful crop—usually in a season of abundance—keeps the grower's hope alive and often blinds him to the vital fact that this occasional crop is secured at the cost of several years' labor, plant food, and land

occupancy. In this case the ax to the trunk and dynamite to the stump is the only sensible course open.

Water supply inadequate to the requirements of a mature orchard is a not infrequent condition. Too often the production secured from one or two or a row of trees has led to the planting of orchard acreage in untried locations. The trees, while young, bore good crops for their size, but as they grew larger the production remained stationary and finally became reduced as the trees matured. In this case the water supply, ample for a few trees or a row of trees, and for young

trees, proved to be inadequate to meet the demands of a growing orchard, and with maturity, vegetative growth had to be made at the expense of fruitfulness.

Not all locations that will grow apple trees are capable of producing profitable crops of apples. According to standard authorities, from 15 to 20 tons of water are required annually to enable a mature apple tree to make proper growth and produce a profitable crop. A single bushel of apples requires some 2500 pounds of water from blossom to maturity.

Orchards that persist in lack of vigor in growth and fruitfulness after adequate fertilization and care have been supplied may be irrigated profitably only if water may be secured at low cost. Adding 50 per cent for evaporation and seepage to the 2500 pounds required for a bushel of apples, we find about two tons, or 15 barrels, of water are required for each additional bushel of apples.

Where water cannot be secured at cost permitting a profit in fruit production, the removal of every other row of trees may make profitable production possible for the remaining trees. In extreme cases the subsequent removal of every other tree in the remaining rows may prove advisable.

The careful grower will do well to examine carefully the production of his orchard trees over the past five years. Any mature orchard that has not yielded a net profit to the grower for the entire period should be carefully examined by a horticultural specialist. If the examination discloses conditions inimical to profits and not capable of being remedied, cold common sense will dictate that pruning be made close to the ground level.

There is a limited demand for apple wood for saw handles, and it is quite possible to turn an unprofitable apple orchard into a cash balance.

No mass movement is necessary to effect a reduction in apple acreage that will insure stability to the apple industry. If each grower will but move to stop his own cash losses by the removal of every unprofitable tree, his own gain will be immediate and the gain to the apple industry will be general and lasting.

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# BRINGING BACK THE CHESTNUT

By CARROLL D. BUSH

ONE OF THE most important tree crops of the temperate zone is the chestnut. It greatly helps to support a large population, for it is grown in Japan, China, Asia Minor, southern Europe, and parts of northern Africa. In France, Spain and Italy the chestnut crop is much larger

than that which will resist the blight and that will furnish us profit from both nuts and timber. We have at present no chestnut that will do all of this.

It is quite certain that the blight was brought into this country on trees from China and it is natural that we should look to China for trees that are blight resistant. There are several species in China and naturally, as they live where the blight is found, they are all blight resistant. Only one of the species seems to be commercially valuable for its nuts. These nuts in China are very nearly as good in quality as our American sweet, and average larger in size. The tree, however, is not large and would not be useful for its timber, except for tannin and posts. There is a large growing chestnut variety in China but the nuts are too small for consideration except perhaps for breeding varieties. This is be-

cause of Pathology reported that the blight had been found there in at least two localities. It is possible that the Japanese species is so resistant to the disease that the blight has existed there for some time without its presence being made evident by any infection of the trees. Dr. G. A. Zimmerman of Harrisburg, Pa., an experimenter of long experience, says that the most resistant tree on his place is a Japanese that has never shown a sign of blight. He grows his trees in a field where American trees were killed when the blight swept through there, and this is a severe test. In Maryland there are a few trees that have not been killed by the blight and are still producing nuts. These appear to be, without question, Japanese. They are the only trees of which we seem to have any record that have lived and kept producing in the blight section.

It is quite true that the Japanese chestnuts, while very large, are coarse. The nuts are hardly palatable for eating raw, but they make a good cooking nut. One concern on the Pacific Coast has canned chestnuts as an experiment and found that the large size of the Japanese would make them a much cheaper nut to handle if ever there would be occasion to can these nuts on a com-

Japanese chestnut tree in southern Illinois. This species is hardy over much of this country. It bears early and freely, and often the nuts are very good, although they are usually best when cooked. This species is blight resistant to a considerable degree. Photo by Reed, U. S. D. A.



Rochester chestnut tree planted in spring of 1930 bearing nuts the same year. Trees were loaded with bloom again in spring of 1931 on farm of H. Burgardt, Union City, Mich.

and more valuable than the walnut crop, which also is important. Because only a small part of the chestnut crop finds its way to the markets, we often misjudge its importance. Besides being used for human food, the chestnut is important in feeding animals and poultry.

The chestnut was once the most important nut tree in America. Practically the only commercial nut groves of the northeastern part of the United States were chestnut groves. Since the appearance of the chestnut bark disease, the larger stands of the American chestnut have been killed off. There have been attempts to re-establish the chestnut in this country and, while it is known that it can be done, little has really been accomplished.

There has been some criticism of these attempts and the time and money spent in this way. These criticisms have come from people who do not realize the value of the chestnut. If we could plant chestnuts again, it would mean that great areas of cut-over land could be put into production. Chestnuts as food for humans or domestic animals rank with corn, and production per acre is large. If we are to raise the chestnut, we must have a tree

In circle—The small nuts are American sweets. The larger nuts are Chinese sweets, blight resistant. Picture about half size.

ing tried out as a tree to reforest some of our cut-over land.

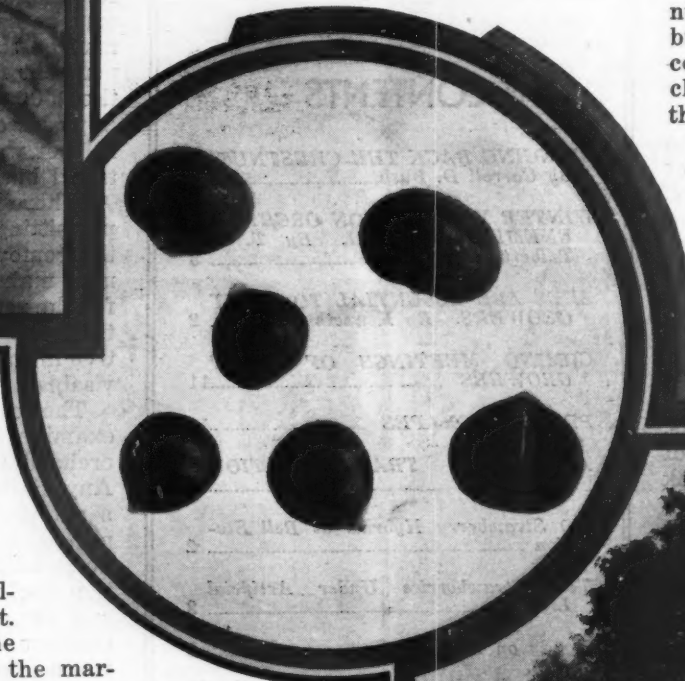
Japan also has a species of chestnut. The nuts of this species are the largest of all the chestnuts, individual specimens sometimes weighing several ounces. It does not make a larger tree either, though some of them are said to reach the height of 50 feet.

It has seemed to me that the possibilities of this Japanese species have been overlooked. It has been reported as only slightly resistant. The blight was not reported as existing in Japan. However, when I tried to bring in some of the varieties with the largest nuts, the Bureau

mercial scale for the retail food trade.

The American chinkapin, a shrub or small chestnut tree, with very small nuts, is nearly immune to the blight. The nuts are perhaps the sweetest and the finest of all the chestnuts.

There is much promise for the future in hybrids of the chestnuts. The late Dr. Walter Van Fleet worked with them for a number of years. His hybrids were mostly crosses of the American and Chinese. [Please turn to Page 13]





# WINTER WARFARE ON ORCHARD ENEMIES

By T. J. TALBERT

## PART II

**T**HE grasshoppers which are likely to do damage to the foliage of fruit trees next year will come from eggs deposited in well-drained places or compact soil found along fence rows, in weed and grass-grown ravines, and in other localities. Moreover, alfalfa fields, weed patches, grass and sod are favorite egg-laying grounds for the hopper if the soil is compact.

Fruit growers who have been troubled with grasshopper damage in 1931 may lessen the injury next year if the

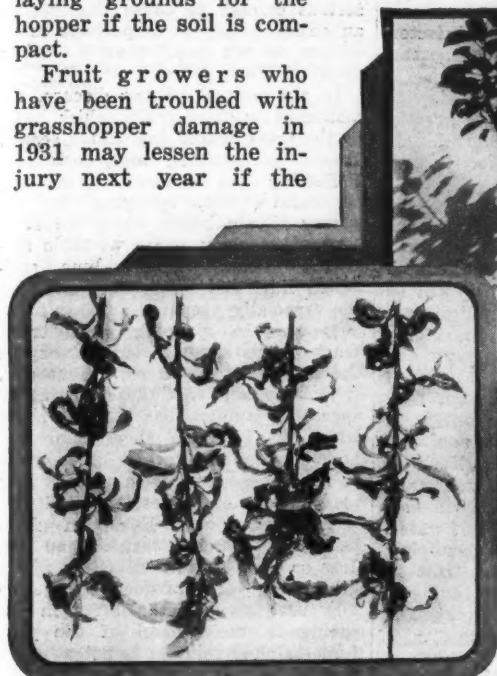
sprays be adequate when the cedar rust is serious, as the orchardist may experience in one week, five or six or more rainy or damp periods followed by drying conditions and, consequently, as many different disseminations of cedar rust spores. Spraying is not, therefore, a practicable remedy.

The disease also differs from other fruit diseases in that the spores or "seeds" of the fungus germinate

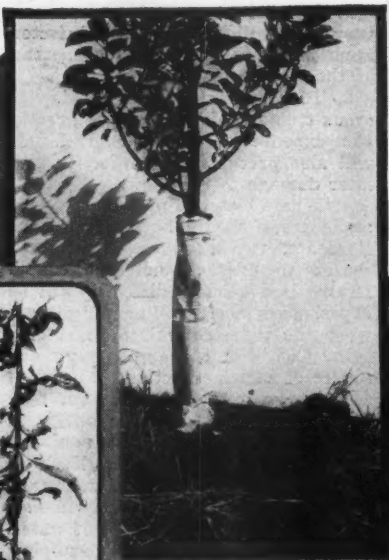
Where it is necessary, however, to leave a few cedar trees, they may be prevented from spreading the cedar rust by carefully cutting and burning the galls or cedar apples on the red cedar trees each year.

The red cedar trees which generally do the greatest harm in commercial apple growing districts are those which are allowed to grow along the roadsides, on pasture lands, and on rough and uncultivated waste lands. In such situations from 30 to 40 or 50 years may be required to develop cedar trees capable of making satisfactory fence posts. No one, therefore, can question the advisability of destroying runty, unprofitable cedar trees in the neighborhood of commercial orchards, if the matter is considered from an economic point of view.

Small whitish-colored insects, winged and very active, may swarm on



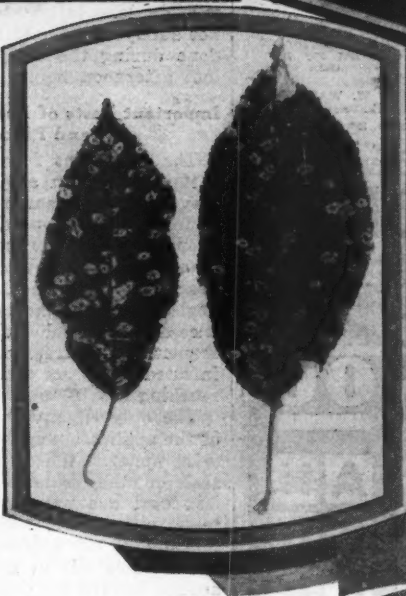
Peach leaves and twigs showing the characteristic injury of the peach leaf curl disease.



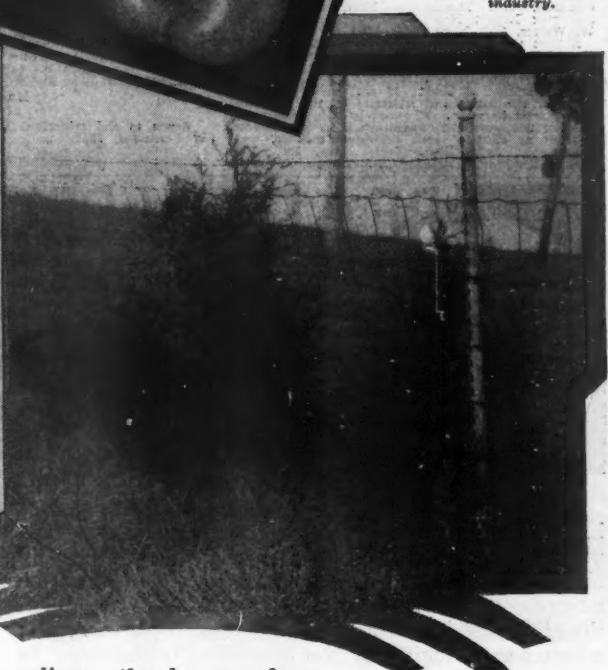
Two-year-old apple tree trunk wrapped with newspapers to prevent injury by rabbits.



Apple fruits damaged by cedar rust.



Apple leaves seriously injured by cedar rust.



Below.—Red cedar trees growing on waste land near apple orchards are a menace to the apple industry.

fence rows are raked and burned off. Deep plowing where practicable will turn the eggs under so deeply that the young hoppers will have difficulty in reaching the surface of the ground when the eggs hatch next year.

An economical way to prevent rabbits from gnawing the bark of the trunks of young fruit trees is to wrap the base of the tree trunks from the ground to a height of about 18 to 20 inches or the space between the ground and the lowest branches. Where the branches are less than 18 inches above the soil, the wrappers should include both trunk and branches to a height of about 18 or 20 inches. Various kinds of wrapping material may be used. Some of the most common are one-inch mesh poultry wire, galvanized window screen wire, galvanized wire netting having three or four meshes to the inch, old newspapers, gunny sacks torn in strips six to eight inches wide, and cornstalks. Wood-veneer wrappers, patented wire wrappers, tarred paper and building paper may be bought and used.

Since the foliage and fruit of apple trees may become infected with cedar rust in the spring after each rain or period of damp weather, it is practically impossible for the apple producer to spray his orchard often enough to obtain satisfactory control of the disease. It is true that sprays as they are generally applied for the control of other diseases assist some in the control of cedar rust. Rarely, if ever, will the regular

more quickly, thus requiring the application of a spray soon after the spores alight upon the foliage or fruit if injury is to be prevented. Apple growers and investigators, therefore, are of one accord in the opinion that the only satisfactory way to prevent serious damage from cedar rust is to cut the red cedar in the vicinity of apple orchards. Since the red cedar does not sprout from the stump or stub, one cutting is sufficient. It is important that every red cedar tree be cut to a distance of one and one half to two miles, if satisfactory protection against the disease is to be afforded.

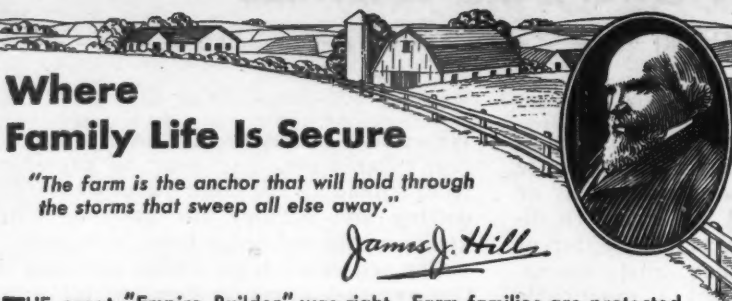
One small red cedar tree may spread to the wind enough spores to cause great damage to a commercial apple orchard.

the leaves of apples and grapes during the months of July and August as well as early September. The food punctures of these tiny insects cause white spots to develop and become numerous enough to give the foliage a distinctly bleached appearance. On young trees and young vines the leaves may curl as if attacked by aphids.

These leaf hoppers winter as adults in rubbish, trash, leaves, and litter in and about the orchards and vineyards. Fruit growers, therefore, can do much to control this insect by burning the leaves, trash, and litter or by turning it under during the fall and winter.

Contact sprays of tobacco extract in soap suds are fairly effective when applied





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STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, OF American Fruit Grower published monthly at Mount Morris, Ill., for October 1, 1931.

Before me, a Notary Public in and for the State of Illinois, personally appeared Harry W. Walker, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the American Fruit Grower and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, International Trade Press, Inc., 1105 Merchandise Mart, Chicago, Ill.; Editor, Chester G. Campbell, 1105 Merchandise Mart, Chicago, Ill.; Managing Editor, None; Business Managers, Harry W. Walker, 1105 Merchandise Mart, Chicago, Ill.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.) International Trade Press, Inc., 1105 Merchandise Mart, Chicago, Ill.; Magazines, Inc., 1105

Merchandise Mart, Chicago, Ill.; Superior Printing Co., 203 W. 26th St., New York City, N. Y.; Elmer Quitzau, Chicago, Ill.; Mrs. Margaret E. Sampson, Bridgeport, Conn.; A. K. Mercier, 211-07 28th Ave., Bayside, N. Y.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) Chicago Trust Co., 134 So. La Salle St., Chicago, Ill. (as Trustee).

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

HARRY W. WALKER,  
Business Manager.

Sworn to and subscribed before me this 24th day of September, 1931.

(SEAL) A. C. BAMBERGER,  
(My commission expires Aug. 11, 1933.)

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You can profit by reading the classified advertisements on the third cover of this issue. Many attractive offers appear there and you will surely be interested in some of them. Write for full particulars to those that appeal to you, and do business with any of our advertisers in full confidence of receiving fair and square treatment. If you wish to use a classified advertisement yourself fill in and mail the convenient coupon on the third cover.

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Notice the letters in the black strip at the right, the "forbidden letter puzzle." The whole alphabet appears, but you will see that bars are run across every other letter starting with "B." These letters with the lines across them are all forbidden. Find the letters that do not have lines across them. Write them down, then use combinations of them to spell out words. 15 words are required for a correct answer and this number will give you the highest score given for this test. I know your eye immediately hits on several words such as "ace," "me" and "go." These words are all good acceptable words and you may include them in your list. Each letter that appears without lines across it may be used as many times as you wish, but no "forbidden" letters may be used.

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early in the spring and even through the summer and into the fall. Some growers have also secured fairly good results by applying the so-called summer oil sprays during the summer season.

Some of the most important points to remember in the control of apple blotch are:

1. When pruning, remove blotch cankers on water sprouts, fruit spurs, and branches. These cankers carry the disease over from one season to the next. The destruction of these hold-over cankers will aid greatly in the control of the disease.

2. It is often profitable to remove very susceptible and badly infected apple varieties to prevent the spread of the disease in the orchard.

3. Plant resistant, uninfected, vigorous trees. This will reduce greatly the expense of blotch control. It will also prevent early infection and later damage to the fruit.

4. Where blotch is prevalent, young apple trees should be sprayed with Bordeaux two or three times each season to prevent blotch infection. If this is done, less difficulty will be experienced in controlling the disease when the trees come into bearing.

5. The wild crabapple may be a source of blotch infection. Where infected trees grow near orchards they should be destroyed.

6. For the late sprays, lime-sulphur with arsenate of lead is less likely to do injury to the fruit and foliage if used at the rate of one and one-half to two gallons to 100 gallons of water. Moreover, Bordeaux or lime-sulphur will do less injury to the fruit in hot sunny weather if the spraying is done during the early morning and late afternoon hours.

### Important Pests of Peaches, Cherries, and Plums

The important fungous disease of the peach known as peach leaf curl may year after year partially or completely defoliate peach trees unless proper dormant sprays are thoroughly applied. Since this is true, many peach trees or peach orchards are neglected from year to year in reference to the control of this fungus, consequently the trees weaken, become infested by borers and die soon after reaching bearing age.

The only effective remedy consists of the application of a dormant fungicidal spray. Where both San Jose scale or other scale insects and peach leaf curl are present on the peach trees, a spray of lime-sulphur solution 1-7 or oil emulsion or some of the miscible oils in Bordeaux 4-4-50, applied toward the close of the winter season before any growth starts, will control both scale and curl. It is highly important in the application of the peach leaf curl and scale spray that the work be done very thoroughly, otherwise scale and curl may do serious injury during the following spring and summer.

The peach tree borer will attack all these stone fruits, but generally does its worst or most destructive injury to the peach. The paradichlorobenzene method of controlling peach tree borers for peach trees has proved to be very successful. This chemical when applied around the trunks at the surface of the soil in September or early October and covered with earth will give better control than hand worming with knife and wire. It is also less expensive and does considerably less damage to the trees. One-fourth ounce to one ounce to the tree, depending on size of trunk, is required. One-fourth ounce is sufficient for a trunk two inches in diameter, one-half ounce for a trunk four inches in diameter, while one ounce

will be required for trunks of eight inches in diameter.

This substance, also known as PDB, should not be used on apple, pear, cherry, and plum trees, as it is likely to do serious injury. For these fruit trees there is no better method than the worming of the trees during the spring and fall, the production of a strong vigorous growth, and the keeping of the trunks of the trees white-washed with lime and lead arsenate.

Brown rot attacks the blossoms, twigs, limbs, and fruit in all stages of ripeness of peaches, cherries, and plums. This fungous disease is often serious enough to cause the loss of an entire crop. It is perhaps more serious on the peach than the other so-called stone fruits.

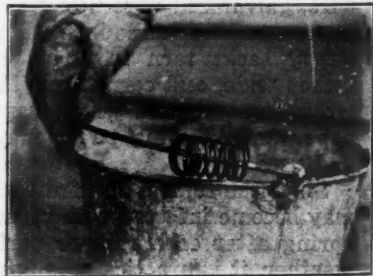
In the control of the disease, all mummies or dried fruits which hang on the trees during the winter season should be removed and destroyed. Following the destruction of the mummified fruit, spraying in the spring should begin when the blossoms show color, using wettable sulphur, dry-mix sulphur lime, self-boiled lime and sulphur or some of the especially prepared sulphur products used in spraying peach trees. Dust sprays are also satisfactory in the control of brown rot. Generally, it is important that these dusting or spraying applications should begin when the blossoms show color and be continued at intervals of about 10 to 12 days up until within about four to six weeks of harvest time.

The scales of European fruit lecanium are much larger than San Jose or scurfy scale. Miscible oils or lubricating oil emulsions are generally used as growth starts in the spring in the control of the pest. Lime-sulphur solution is not as effective in the control of this pest as the oil sprays.

The unsightly rough black swollen cankers found on the limbs and twigs of the cherry and plum trees are caused by the fungous disease known as black rot. These cankers may girdle or eventually kill the affected parts. Control may be difficult. Cutting out all the cankers regardless of their location in the late fall or early winter season before the winter spores are developed generally gives the best results. It is important that treated trees be sprayed during the spring and summer with fungicides such as Bordeaux or lime-sulphur.

### HANDY ON PAIL HANDLE

THE WIRE HANDLE or bail of the common pail always lays flat on or even under the top rim, making it very unhandy to quickly and easily take hold of and grip it, and it is even more unhandy when one has



gloves on. To remedy this, take an old auto gas engine valve spring and work it on over the handle pushing it down near the lug or ear, as shown. It is not in the way in the least, and it keeps the handle up just a half inch or so where you can easily take hold of it any time. The spring stays firmly on the job.—Frank W. Bentley.

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# QUESTIONS AND COMMENT

Conducted by T. J. TALBERT

Questions on fruit growing problems and on general horticulture will be answered through this department if of general interest. For reply by mail enclose 2c stamped envelope (air mail 5c). Address AMERICAN FRUIT GROWER, 53 West Jackson Blvd., Chicago.

## Pruning Peach Trees

I have about 1500 fruit trees four years old and younger, mostly peach trees. I wish to do all the pruning myself and if I do, I will have to start by the first of January. I expect to thin out the fruiting wood and head back what is left for fruiting. Will the cold weather do more damage to the trees because of this early pruning, or will the small cuts dry out too far back for the last bud to grow?—J. F., Mississippi.

Since, according to your conditions, it seems necessary to begin your peach pruning work at this season of the year, we feel sure that you will not do material injury to the peach trees by the drying out of the wounds made or by the killing back of fruit buds where cuts are made fairly close to them.

The chief objection, however, to pruning at this season of the year is that in case of severe cold weather injury to the peach wood, those branches which have been left for fruiting may be injured to such an extent that with the removal of the same there would not be fruiting wood left in sufficient quantities to produce a crop during the following summer.

It is suggested, therefore, that you proceed with your pruning work, thinning out the trees fairly lightly and cutting back moderately. By so doing you are not likely to do injury to the trees, and you will thus forward your pruning work by having it accomplished before growth starts in the spring.

## Unfruitful Cherries

Our trees are six years old and they were supposed to be two years old when we received them. They bloom every year but have no cherries. All the blossoms fall off and bear no fruit. At the lower end of the tree near the ground a honey-like substance comes out and the bark peels off. The leaves curl up into a roll. Enclosed is a leaf. Two large trees have rotted up. We could find no insects.—C. D., Ohio.

From the description which you give of your cherry trees it is difficult for one to be anything like certain as to the exact cause of the cherry trees being unfruitful. It is possible, however, that one or more causes may contribute to their barrenness.

If they are sweet cherries, there is a likelihood that the difficulty is due to a lack of cross-pollination; that is, another sweet cherry tree of a different variety should be growing near and blooming at approximately the same time so that cross-pollination might take place through the work of honey bees. This is true because many varieties of sweet cherries are self-sterile and the set of all is generally improved greatly if cross-pollination is provided. Sour cherries, however, are generally self-fertile, although they, too, may at times be unfruitful and require the growing of one or more other varieties for a satisfactory set of fruit.

Another cause that may contribute to the unfruitfulness of the trees is a lack of proper nutrition; that is, the trees are not making as strong a growth as they should, or on the other hand they may be growing too much for the most fruitful condition. In either case, this might account for the difficulty.

Moreover, brown rot, a fungous disease, which not only attacks the fruit but also the buds and fruit spurs, may be responsible for the dropping of the bloom and the lack of fruit set. This, of course, can be corrected by proper and timely spraying.

## The Red Rome Apple

I am planning on planting 10 acres of apple trees this spring. Before planting I would like to ask a few questions concerning the Red Rome.

1. How long have they been grown?
2. Do all of the apples color, including those under the trees?
3. Do they bear as well as the regular Rome?
4. Would they do well in this climate?

5. How does the price compare with the regular Rome?

6. Do they keep as well as the regular Rome?

I would like to know the same things about the Red Delicious. Is there just the Red and Golden Delicious or is there a different variety known as the Red?—L. A. Y., Idaho.

The Red Rome has been grown extensively for a period of only about five or

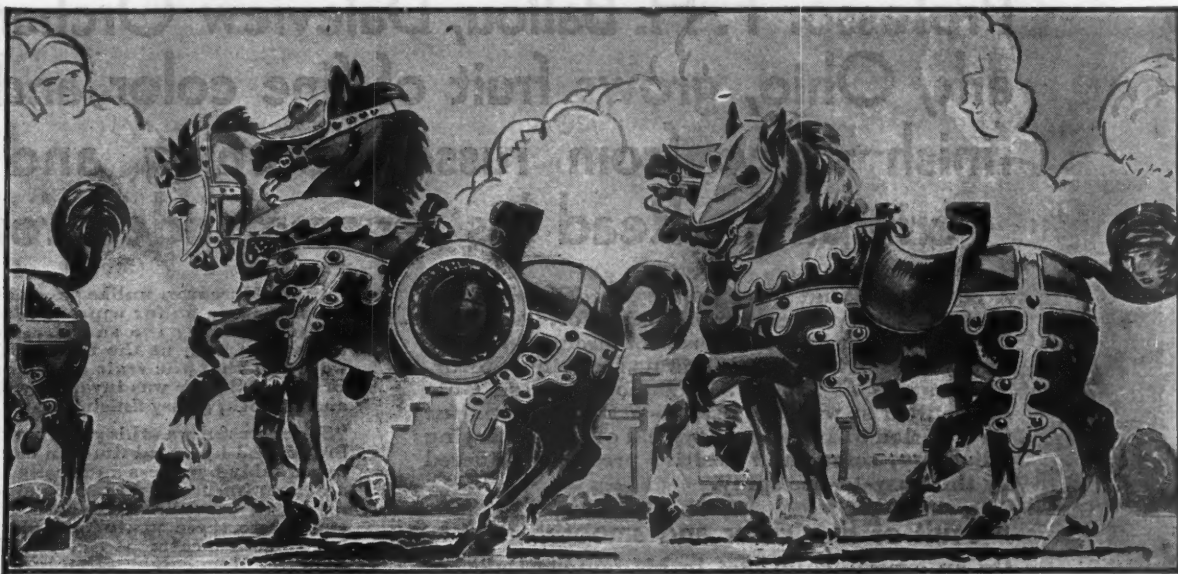
seven years. If the trees are open enough to admit sunlight and are not too vegetative, the fruit of the variety generally colors very uniformly. As to the bearing of this bud sport, no difference between it and the old Rome exists. In fact, with the exception of color, the Red Rome appears to be in every other way very similar to Rome.

If the Rome variety is a success under your conditions, it is our opinion that the Red Rome would do equally as well; and since it has a better color, it should sell much better on the markets. As you know, well-colored, solid red apples generally sell at a higher price than pale or poorly colored apples, even of the same variety. Moreover, the Red Rome appears to keep just as well as Rome.

Red Delicious is also a bud sport, and

at the present time there are two bud sports that are on the market: first, the Starking, the exclusive rights of which belong to the Stark Bros. Nurseries and Orchard Company, of Louisiana, Missouri; second, the Richared, the sale rights of which are now, I believe, located in various nurseries throughout the country. This better colored Delicious, and this refers to both of the sports mentioned above, should sell better on the markets than the old Delicious, and it appears to be in every other way similar to Delicious. What I have said about Red Rome, therefore, applies equally as well to the so-called Red Delicious of the varieties mentioned.

Keep farm implements and machinery not in use under shelter.



# Win \$2,500 or Buick 8 Sedan and \$1,000 Cash

## Can You Find the King's Men?

The King's Horses stood in the Court Yard of the great Castle. But where are the King's Men? Can you find them? The faces of the King's Men are shown in odd places about the picture. Some are upside down, others look sideways, some look straight at you. Mark on the picture as many faces as you can find and mail to me at once. Sharp eyes will find them. Can you?

We are giving \$7,500 in more than 100 prizes in a sensational new plan to advertise our business. Also thousands of dollars in cash rewards. In a former campaign, Mr. Dennis Beemer, Utica, Mich., won \$4,740. Miss Helen Schick won \$2,565. Many others won big prizes. In our new campaign someone wins latest model Buick Sedan delivered by nearest dealer and \$1,000 cash (or \$2,500 total if all cash is preferred)—why not you?

**\$1,000 Extra** Just for Promptness  
We want this advertising campaign started at once. Therefore, \$1,000 extra cash will be given the first prize winner for being prompt. Send your answer today—take no chance of losing the \$1,000 extra promptness prize.

## Mail Coupon Today

The money to pay all prizes is already in a big Chicago Bank waiting for the winners. If you answer now, and take an active part, you are sure to get a cash reward. You may win a new Buick 8 Sedan delivered by your own dealer and \$1,000 cash (or \$2,500 if you prefer all cash). Duplicate prizes given if there are final ties. You are under no obligation if you answer. It doesn't require a penny of your money to win. No matter where you live in the U. S., if you want to win a big prize send your answer today and you will qualify for the opportunity. Someone will win! Find the King's Men.

## Send No Money Just Mail This Coupon NOW

Remember—you will absolutely receive \$1,000.00 CASH if you are prompt and win first prize. So, send your answer at once. Make sure to qualify for this \$1,000.00 extra—win a total of \$2,500.00 if you desire all cash. Tear out the coupon and fill in your name and address now before you forget, or write me a letter.

The main thing is—send in your solution today. You can share in this advertising cash distribution. Hurry! and take no chance of losing

the extra reward of \$1,000.00 for promptness if you win first prize. Act now! You don't need to send a penny of your money to win! Just find the faces in the picture above and mail with coupon at once for particulars.

ALAN DALE, Mgr.

427 W. Randolph St., Dept. 3151  
CHICAGO, ILL.

## Indiana Farmer Wins \$3,500

C. H. Essig, a farmer, R. R. 3, Argos, Ind., wrote: "I wish to acknowledge receipt of your \$3,500 prize check. I thank you 3,500 times for it! Oh, boy! This is the biggest sum of money I ever had in my hands in my life and I am tickled pink over it. When you think of the people who spend their whole lifetime working and in the end never realize such a sum, it is indeed a fortune to win."



Mr. Essig on his Farm

## Housewife Won \$4,705



Mrs. Kate Needham of Portland, Ore., wrote: "Oh! I thank you so much for the \$4,705 I won. It must be a wonderful feeling to know that you have made anyone as happy as I am. I will never forget your Company."

M. D. Reidman of Eveleth, Minn., won \$2,560. Miss Serene Burbeck, of Wisc., won \$1,125.00.



## Clip and Mail Today

ALAN DALE, Mgr.,  
427 W. Randolph St., Dept. 3151  
Chicago, Ill.

I have marked the faces in the \$2,500.00 prize picture. I am anxious to win a prize. Please advise me how I stand.

Name.....

Address.....

Town..... State.....

# Prominent horticulturist

## S-W DRY LIME SULFUR

Professor F. H. Ballou, Daleview Orchard, Newark, Ohio, grows fruit of fine color and smooth finish—free from russet, burning and foliage crimping. Read his recommended formulas.

A safe spray that gives positive protection . . . That is what every grower is looking for. And that is what increasing hundreds of orchard owners have found in Sherwin-Williams Dry Lime Sulfur. The success of Prof. F. H. Ballou, leading Ohio horticulturist who has used S-W Dry Lime Sulfur for a period of 10 years, is typical of the unvarying reliability, safety and positive protection offered by this easy-to-use spray.

### Fruit of fine color and smooth finish

On an experimental plot in his famous Daleview Orchard, Prof. Ballou, of the Ohio Agricultural Experiment Station, has produced exceptionally high yields of fruit remarkable for its fine color and smooth finish. (See actual photographs on these pages.) For 10 seasons, according to Prof. Ballou, russetting, burning and crimping of foliage have been entirely avoided through the consistent use of S-W Dry Lime Sulfur.

### Recommended dilutions

Based on Prof. Ballou's experiments, the following dilutions of S-W Dry Lime Sulfur are recommended for these varieties of apples:—Grimes, Jonathan, Delicious, Winter Banana, Golden Delicious, Stayman Winesap. (These varieties are grown in the Daleview Orchards.) For the PINK SPRAY—3 lbs. of S-W Dry Lime Sulfur and 5 lbs. of hydrated lime to 50 gallons of water. For the CALYX AND ALL SUBSEQUENT SPRAYS—1½ lbs. of S-W Dry Lime Sulfur and 5 lbs. of hydrated lime to 50 gallons of water.

Read what Prof. F. H. Ballou says about Dry Lime Sulfur in the Proceedings of the Sixty-Third Annual Meeting of the Ohio State Horticultural Society

The following remarks are quoted from the Ohio State Horticultural Society Proceedings for 1930.

" . . . Dry Lime Sulfur gave equally as fine control of scab and sooty fungus as did commercial liquid lime

sulfur. Moreover, unlike the commercial liquid form, the Dry Lime Sulfur caused no foliage or fruit injury whatever during the summer season when temperatures were high at the time of spraying. Then, too, we noted that the fruit grown on plots sprayed with Dry Lime Sulfur was invariably of especially fine color and smooth, glossy finish.

"So successful was this program of spraying (Dry Lime Sulfur and hydrated lime) in control of apple scab; so remarkably harmless and really invigorating to foliage and growing fruit; and so conducive to production of apples of exceedingly smooth, glossy finish and fine color were these "twin formulas" for pre-bloom and post-bloom treatment that this Dry Lime Sulfur and hydrated lime combination has been continued in use for eight successive years . . . with constant and growing satisfaction."

### Convenient to use—Saves you money

Sherwin-Williams Dry Lime Sulfur is a marked improvement over the old liquid form. It is made from a 33 degree Baume Liquid to which a stabilizer has been added. This stabilizer causes slower oxidation, thus providing more positive pest control.

S-W Dry Lime Sulfur is far more convenient to use than other types of sprays. It comes to you in powdered form ready for mixing. Packed in easy-to-handle 12½ lb. paper bags. No empties to return. No freight to pay on water. No needless hauling charges. You save money and at the same time get better, safer protection.

### Try S-W Dry Lime Sulfur—See your local S-W Dealer

You can get S-W Dry Lime Sulfur—and all other standard S-W Insecticides and Fungicides—at your local Sherwin-Williams dealer's. Ask him about the proper dilutions to use for your particular requirements. Use S-W Dry Lime Sulfur on your trees. . . .

Grow fruit of the same uniform high quality, fine color and smooth finish that Prof. Ballou has been growing with the aid of this economical, safe spray.

THE SHERWIN-WILLIAMS CO.  
CLEVELAND, OHIO



# SHERWIN-WILLIAMS



# proves superiority of in 10 year test!

Close-up of fruit on a tree in the Daleview Orchards at Newark, Ohio. For 10 years S-W Dry Lime Sulfur has been used on these trees with unvarying success by Prof. F. H. Ballou, noted Ohio horticulturist.

According to Prof. Ballou, all his trees sprayed with S-W Dry Lime Sulfur have been free from russet, burning and foliage crimping for a period of 10 years.



Another heavily laden tree in Prof. Ballou's orchard at Newark, Ohio. Note the healthy appearance of fruit and foliage—resulting from consistent use of S-W Dry Lime Sulfur.



This "Stayman Winesap"—perfectly rounded, firm and free from russet—well illustrates why Prof. Ballou is enthusiastic about S-W Dry Lime Sulfur. Fine fruit, good yields and healthy trees can be developed by consistent use of this proved spray.

Many varieties of apples are grown on the experimental plot at the Daleview Orchard. All trees on this plot have been sprayed with S-W Dry Lime Sulfur for 10 years. A "Grimes Golden" is illustrated.



## S-W Free Mulsion

A trouble-free, soap-free oil emulsion spray especially recommended for the dormant spraying of apple, peach, pear and plum trees for the control of scale insects.

## S-W Arsenate of Lead

A light, fluffy arsenate of lead which deposits more arsenic on the fruit. Kills chewing insects without injury to fruit or foliage.



The perfect proportions, rich color and smooth finish of this "Golden Delicious" are typical of the fruit yielded by the trees sprayed with S-W Dry Lime Sulfur in the Daleview Orchard.

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**FARM**  
Where It's Warm

While you may be snowed in, we're making hay while the sun shines—that is, we're enjoying a mild winter, and can grow fruits nine months of the year, and some, all year. The healthy hills of Warren County in "ole" Mississippi are especially adapted for fruit. Interested? Send for free booklet, "FARMING HAPPINESS."

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No Handling of Birds  
JUST PAINT THE ROOSTS

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—Every Deaf Person Knows That—  
George P. Way made himself deaf, after being deaf for 25 years, with Artificial Ear Drums—his own invention. He wore them day and night. They stopped head noises and ringing ears. They are invisible, and perfectly comfortable. No one sees them. Write for his true story, "How I Got Deaf and Made Myself Hear" Also booklet on Deafness. Address: **Artificial Ear Drum GEORGE P. WAY, INC.** 1071 Hoffman Building, Detroit, Michigan

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Due to the general depression the Phelan Brooder Co. will sell this season, their brooders on credit. Write for descriptive literature and terms.

**PHELAN BROODER CO.**  
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**\$7.99**  
U. S. POLICE SPECIAL  
Newest model, double action, 5 to 7 shot American Made. \$30 revolver. Choice of .45, .32, or .22 Calibre; 2 1/2, 4 1/2 or 6-inch barrel; Blue or Nickel finish. Powerful, safe, accurate and hard hitting. 5-year written guarantee. Special sale price \$2 with order. Balance \$5.99 when received.

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ROOM BATH \$2.70  
New - Improved - Comfortable  
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Financial Leaders... Builders of Industry... Directors of the destinies of America's far flung enterprises. On their arms their charming wives and daughters.

**HOTEL DETROIT-LELAND**  
at \$2.50 single and \$3.00 double (all outside rooms) offers the traveller the utmost in comfort and luxury, plus the distinction of a notable address...  
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## CROP REPORT COMMENTS

**A** TOTAL fruit crop of about 13 million tons compared with about 12 1/2 million tons produced last year is moving into consumption at the lowest prices in many years. The apple crop is the third largest in 15 years and in the middle of October farmers were receiving lowest prices of this period. Pears are about 12 per cent below last year's record production but may still be the third largest crop harvested. The peach crop was the largest yet produced. Cranberry production will be heavier than in any year since 1926. The orange and grapefruit crops will be below production last year but well above average. On the other hand the grape crop is the smallest since 1921. The combined crops of pecans and California almonds and walnuts will probably be above previous records and peanuts are expected to give the first billion pound crop gathered in this country in at least 10 years.

### Apples

The preliminary estimate of apple production is about 220,000,000 bushels, which is a little more than a third larger than the crop of 1930 and a fourth larger than the average production for the preceding five years.

Production this year is particularly heavy in the South Atlantic and the Central States where only a small crop was produced last year. In the North Atlantic States and Western States the production is about five per cent less than the average production in these States.

With prices very low and considerable fruit showing low quality because of worms and scab, wastage has been heavy and the estimate of the commercial apple crop, or that portion which will be sold for consumption as fresh fruit, has been reduced to 36,242,000 barrels. This is four per cent below the October 1 estimate and only about eight per cent above commercial production last year.

Carlot shipments of apples reported as originating in the Eastern States through October 31 were about 16 per cent larger than the shipments reported currently up to November 1 last season, due mainly to the much heavier movement from the Cumberland-Shenandoah region in Virginia, Maryland, and West Virginia. Shipments reported from the Western States, on the other hand, have been about 37 per cent less than reported last year up to November 1.

### Pears

Pear production is estimated at 24,215,000 bushels, about the same as expected a month ago but far below last year's large crop of 27,577,000 bushels. Production in the principal commercial pear States, California, Washington, Oregon, New York, and Michigan, totaled only about 16,500,000 bushels compared with about 23,000,000 last year, but this was offset by substantial increases in most other States.

### Grapes

The grape harvest, when completed, is expected to show a total of about 1,609,000 tons which would be about a third less than production last year and about the same amount below the average production of the preceding five years. California production of all varieties, combined in terms of fresh grapes, is estimated at 1,296,000 tons. Last year about 2,182,000 tons were produced on the vines but only 1,749,000 tons were

actually harvested. Grape production in other States is expected to total about 313,000 tons which would be 13 per cent above their production last year and 27 per cent above their average production during the previous five years.

### Potatoes

November reports on the yields secured indicate a potato crop of 382,325,000 bushels compared with the 1930 crop of 343,236,000 bushels. The fall has been unusually favorable for the further development and harvesting of the potato crop. Frosts had not visited some of the more important late potato growing States up to the end of October and, with favorable moisture conditions, the crop took on tonnage rapidly. With losses from blight and freezing also low, yields are running above the earlier expectations in practically all of the Northern States from Maine to Illinois and Wisconsin, and also in Idaho.

Notwithstanding the small loss from blight and field frost, the quality of the potato crop is reported at 78.8 as compared with 82.8 for the 1930 crop and 86.4 the average for the 10 years preceding. The reports on quality, which may not be strictly comparable, average lower than in any year since the very dry season of 1901.

### Sweet Potatoes

From southern Virginia northward the late fall has improved prospects for sweet potatoes and good yields are being secured, but in most of the Cotton Belt, where the bulk of the crop is grown, the very dry weather of September and October seriously reduced both yield and quality. November reports indicate an average yield of 84.4 bushels per acre for the country as a whole, the lowest yield since that of 1925. As a larger acreage was planted and the yield is expected to be only slightly lower than that of last year, the crop is expected to total 73,475,000 bushels which is 18 per cent more than the 62,230,000 bushels harvested last year.

### Pecans

A large crop of pecans is being gathered, November reports indicating about 75,540,000 pounds compared with about 44,000,000 in 1930, and 52,000,000 the average for the five years 1925-1929. The crop of 1926 exceeded 83,000,000 pounds. Low prices may interfere with the wild crop being gathered as fully as usual.

October weather was too dry for pecans in most of the gulf coast region, and there was considerable shedding of nuts and loss from earlier prospects there. The crop appears to have maintained its position in the Southwest and to have improved somewhat in the northern part of the belt.

### Citrus

**Florida:** Dry weather during November has caused the fruit to size rather slowly. Owing to the lateness of the crop, movement is considerably below last year, especially on oranges.

**Louisiana:** The condition of oranges at 75 per cent of normal is the same condition figure as was reported on October 1. The weather has been unfavorable for this crop.

**Texas:** Citrus fruit is rather small at the present time, but growers are now watering their trees in order to increase the size of the fruit. If this

## RUPTURES

Need firm but comfortable support

The patented Brooks Appliance retains securely without annoying springs or hard pads. Allows full body freedom. Worn and praised by active men and women in every walk of life. Over 3 million sold. Sent on 10 days' trial. Not obtainable through any store or agent in U. S., but made to individual measurements and sent direct from Marshall. Full information and free 32-page Rupture booklet sent in plain sealed envelope. Send for trial offer. **C. E. Brooks, Inventor**  
**BROOKS APPLIANCE CO.** 105 State St., Marshall, Mich.



### HOWES' OINTMENT for CANNIBALISM

Stops toe and feather picking. Used by many State Colleges. From your dealer or direct on receipt of money order.

**JOHN T. HOWES, Mfr.**

28 Broad Street, Milford, Conn.

### Colds in Poultry Quickly Banished

Wheezing, Rattling, Choking, Ends. Trouble Stopped in 48 Hours

Readers with colds in their flocks should read this letter from Thomas Pulliam, Shively, Ky. He says: "I have had birds with their eyes closed from colds, and have saved them all. One cockerel was nearly dead. He lost 5 pounds. I gave him Group-Over and in two weeks he was full of pep and fighting every rooster on the place. Why do people let their birds die? It's so easy to save them with Group-Over." It is amazing how quickly Group-Over ends colds in poultry. A few drops in the nostrils usually banishes every symptom over night—while a little in the drinking water, as a preventive, guards the whole flock. For a liberal supply, send 50c (or \$1 for the extra large size) to Burrell-Dugger Co., 529 Postal Station Bldg., Indianapolis, Ind. As Group-Over is guaranteed to do the work or money refunded, it costs nothing to try.

**STRAWBERRIES**  
PAY Allen's Book of Berries tells how. Describes best varieties, methods and plants. Write today for free copy.  
**THE W. F. ALLEN CO.** 284 Market St. Salisbury, Md.

**PRIMEX GUARANTEED DAY-OLD PULLETS**  
AND COCKERELS Save Money—Save Room—Save Food—Save Chicks with these sex-linked Cross-breeds. Highest Quality Value. Easier to raise. More eggs, more vigor, more disease resistance in Primex pullets. Quick growth, better feathering, longer broiler, heavier and more profitable with Primex cockerels. Write quick for details and order early. **ALYS JOHNSTON CO., Box X, Peto, Ill.**

**Farm Structures.** By K. J. T. Ekblaw. Practical farm buildings which have been built and tested on farms are described, with complete plans and specifications for their construction. 253 pages. 159 illustrations. \$2.60.  
**Farm Concrete.** By K. J. T. Ekblaw. How to mix and proportion cement for the best results, how to estimate costs, how to make forms. How to use concrete in steps, fence posts, cisterns, culverts, besides the more usual construction. 200 pages. 85 illustrations. \$3.40.  
Books sent postpaid on receipt of price.  
**AMERICAN FRUIT GROWER, Merchandise Mart, Chicago.**

**HOTEL KNICKERBOCKER CHICAGO**  
Standard five-dollar rooms at \$3

Here's a smart, cosmopolitan hotel you will enjoy! Adjacent to "Loop" business center, yet away from its clutter and grime. Spacious, cheerful outside rooms with bath, shower, circulating ice water... and Servidor service (minimizing tipping). Parking and garage.

Restaurant and Coffee Shop  
Write for illustrated folder.

**Walton Place (Opposite The Drake)**



watering has the desired effect, the total production has a fair prospect of about doubling last year's estimate.

**California:** There has been little change in the outlook of these crops during the past month except that lemons have shown a three point advance. Grapefruit harvest has begun in the desert valleys. Old crop Valencia oranges are not yet all harvested while new crop Navels have begun to move.

#### REPORTS RESULTS OF PECAN COST STUDIES

**SUCCESSFUL** operation of a commercial pecan orchard requires a long period of skillful physical and financial management, according to R. S. Washburn, Bureau of Agricultural Economics, reporting the results of a cost survey. The studies were made in Georgia, Florida, Alabama, Mississippi, and Louisiana, where 222 representative pecan growers were interviewed. Mr. Washburn found that man-labor constitutes from seven to 22 per cent of the total cost, horse and tractor work from nine to 24 per cent, materials from 11 to 34 per cent, other costs from 12 to 16 per cent, and interest from 23 to 44 per cent. He says that "a mistaken impression of the length of time required for a young orchard to come into commercial bearing has often resulted in inadequate provision being made at the outset for financing the enterprise, with a consequent neglect of the orchard for part of the development period."

#### RESIDUE PROBLEM BECOMES MORE IMPORTANT

**THE** spray-residue problem has become more urgent with the wider use of arsenicals in spraying fruits and vegetables, reports Dr. C. L. Marlatt, Chief of the Bureau of Entomology, in his annual statement to the Secretary of Agriculture. This problem, in Doctor Marlatt's opinion, can be satisfactorily solved only by working out a treatment that, while effectively controlling the codling moth, the Mexican bean beetle, and similar pests, will not leave an objectionable residue. Certain fluorine compounds were proved by orchard tests to be satisfactory against the codling moth in the Pacific Northwest, though inadequate in humid regions. Nicotine sulphate in a dilute oil emulsion has also given fairly good results against the apple worm in the Northwest.

#### COMING MEETINGS OF FRUIT GROWERS

**IDAHO** State Horticultural Society annual meeting will be held at Boise probably the last of January, as that is the usual time.—M. L. Dean, Secretary, Boise.

**INDIANA** Horticultural Society annual meeting will be held at Lincoln Hotel, Indianapolis, January 20 and 21, 1932.—K. I. Fawcett, Secretary, Lafayette.

**MARYLAND** State Horticultural Society meeting will be held in the Horticultural Building at College Park, January 5, and in the Lord Baltimore Hotel at Baltimore, January 6, 1932.—A. F. Vierheller, Assistant Secretary-Treasurer, College Park.

**MONTANA** State Horticultural Society annual meeting will be held at Missoula, February 18 and 19, 1932.—W. E. Pollinger, Secretary, Corvallis.

**NEW YORK** State Horticultural Society annual meeting will be held at Rochester, January 13 to 15, 1932.—Roy P. McPherson, Secretary, Le Roy.

**EASTERN** meeting of New York State Horticultural Society will be held at Poughkeepsie, January 27 to 29, 1932.—Roy P. McPherson, Secretary, Le Roy.

**OHIO** State Horticultural Society annual meeting will be held at Columbus,

February 1 to 3, 1932.—F. H. Beach, Secretary, Columbus.

**PENNSYLVANIA** State Horticultural Association meeting will be held in the South Office Building (not in New Farm Show Building, although during Show Week), at Harrisburg, January 19 to 22, 1932.—R. H. Sudds, Secretary, State College.

**RHODE ISLAND** Fruit Growers' Association meeting will be held at Narragansett Hotel, Providence, January 8, 1932.—T. H. Matteson, Secretary, Cranston.

**SOUTH DAKOTA** State Horticultural Society meeting will be held at Beresford, January 13 and 14, 1932.—N. E. Hansen, President, Brookings.

**WEST VIRGINIA** Horticultural Society thirty-ninth annual meeting will be held at Martinsburg, February 10 and 11, 1932.—Carroll R. Miller, Secretary, Martinsburg.

## PRUNING GRAPES

**GRAPE-PRUNING** is much less complicated than the pruning of fruit trees, once a few fundamental principles are mastered, says Prof. F. E. Gladwin, grape specialist at the New York State Experiment Station at Geneva, who has prepared a brief account of how to prune and train grapes. A copy of Professor Gladwin's directions may be had upon application to the Geneva Station.

Winter pruning is advocated, although it is stated that pruning can be done without danger of injuring the vines at any time after the leaves drop in the fall until the buds swell

in the spring, providing the wood is not actually frozen at the time. Pruning should be delayed until after a heavy freeze in the fall so that immature wood will be killed and withered and can thus be easily identified and removed, it is said.

Following general directions on pruning and on the construction and care of the trellis, Professor Gladwin goes into some detail on methods of training grapes in the eastern United States, including the Chautauqua, the Keuka High Renewal, the Single-Stem Four-cane Kniffen, and the Umbrella Kniffen systems.

# Now—

## Solve this Puzzle . . . That's All To Qualify for this Opportunity

# WIN \$500.00

### We Want Publicity And . . . We'll Give \$5975.00 To Get It!

Here's something that's new! . . . as new as tomorrow or the latest fashion from Paris . . . and fun for all! Here is an offer that is sponsored by a \$1,000,000 concern, founded in 1893, and known from coast to coast . . . an offer in which you can win \$2500.00 in cash! Try it! There are many other big cash prizes too . . . \$5975.00 in all.

As a means for introducing this amazing distribution of \$5975.00 in prizes to the public, we offer a special test in the seventeen pictures of Chester Morris shown here. Chester Morris, you know, is the United Artists' star, who is now appearing in the great new movie, "Corsair." "Cor." is a picture everyone will enjoy. By all means, plan to see it if you love romance, adventure, and genuine thrills.

And if you would like to win \$2500.00 easily and quickly as I will tell you, read the instructions given below and send your answer . . . quick!



### \$500.00 EXTRA GIVEN FOR PROMPTNESS

Mail your answer at once . . . before you do another thing! The winner of the first prize to be awarded will receive \$500.00 extra for being prompt—a total of \$2500.00. Each entrant will be carefully graded, and when the final decision is made, the winners will be selected according to their grades.

#### INSTRUCTIONS AND RULES FOR SENDING ANSWER

Of the seventeen pictures of Chester Morris shown in this advertisement, eight pairs are twins. This leaves JUST ONE AND ONLY ONE that is different than all the rest. Look at the

caps and the collars, their colors and designs. Study every detail carefully. Maybe you will be able to find the different one. That's what you must do . . . HURRY!

If there are ties for any of the prizes, we will pay duplicate prizes to those tying. No one living in Chicago or outside the U. S. A. is eligible to take part in this offer.

Look carefully now and send the number of the picture you believe is different. If you send the correct one, you will be notified at once. Mail your answer today to—Mr. E. C. BENEDICT, Prize Dir., Room 136, 506 North Dearborn Street, Chicago, Illinois.





**Now 3 Times the chance to thrive and Grow.**

Every poultry raiser, every hatchery plant knows that **SIMPLEX BROODER STOVES** have given Baby Chicks more chances to live and more farms more chance for poultry profit than any other single item of poultry equipment. But **SIMPLEX**, running true to 21 years of leadership, now gives baby chicks **three more great chances to grow and thrive, three big improvements of Brooder Stove Design** that hatcheries praise to the skies. These three essential perfections put **SIMPLEX** another 10 years ahead of the times. Mail coupon below so that you won't be 10 years behind the times in brooder knowledge and efficiency.

**1 Easier Cleaning**  
**2 Increased Radiation**  
**3 More Air Circulation**

**SIMPLEX SERVICE FREE MAIL THE COUPON**

**THE NEW-IMPROVED SIMPLEX BROODER STOVE**

**SIMPLEX BROODER STOVE CO., Dept. 4012, Grand Rapids, Mich.**  
Please send me as checked  
☐ New Simplex Literature ☐ 30 Day Trial Offer  
☐ New Book on Poultry ☐ Simplex Dealer's Name  
☐ Improved Simplex Brooder House Plans  
Name \_\_\_\_\_  
Address \_\_\_\_\_

**Oat Sprouter \$2.49**

You can make a better sprouter than you can buy. This sprouter was made in one evening by a 14-year-old boy with a saw and hammer. The cost, with heater, was \$2.49. Thousands in use. All say it is the best and handiest made.

**Make Layers Out of Loafers**  
To make hens lay their best, in winter, growing green feed, rich in vitamins, must be fed. Sprouted oats are best. The Putnam Home Made Sprouter yields the best and sweetest sprouts and with the least work. I will send, free, plans for making this Sprouter with description of Little Putnam Stove to heat it. Also instructions for use of stove to keep fowls' drinking water unfrozen. Stove holds three pints of oil. Burns a month without trimming or filling. Patented burner. Nothing like it. Send me \$2.00 and your dealer's name and I will send this wonderful stove by parcel post prepaid to your door. If not satisfied, return it in 10 days and I'll refund money.  
**J. Putnam, Route 1203-O, Elmira, N. Y.**

**DRIVE OUT COLDS and ROUP**  
with **SEPTOGAS**—A sure, quick and proven flock treatment. Highly germicidal. Thousands of poultry raisers like it. Write today for complete information about Septogas. C-P-O Ointment and M-T-C Tablets. FREE! Receive—Get the new volume of money-making poultry facts. Check full of helpful pointers and photos. Concentrate Products Co., Dept. 79P, 822 S. May St., Chicago, Ill.

These chicks are actually sleeping SAFELY—under a HART gas BROODER

**BROOD THEM... under a HART**

For economical and efficient brooding, the Hart gas brooders have no equal. HART gas brooders work with any kind of gas. Sold and recommended by Standard Oil Co., for Standard Flame Gas.

36"—300 chick size...\$12.75  
48"—500 chick size...16.00  
6 foot—750 chick size...22.00  
Prices F.O.B. Santa Monica, Calif. Write today for complete illustrated catalog.  
**H. W. HART MFG. CO.**  
BOX 464 C SANTA MONICA, CALIF.

## PRACTICAL POULTRY POINTERS

### Keep Poultry Houses Clean and Dry

**DURING** the winter months the main points to watch in the poultry houses are cleanliness, dryness, and purity of the air. It is most necessary to remove the droppings more often at this time of the year than during the summer months because of the close confinement of the birds. Droppings are one of the main sources of spreading contagious diseases to the rest of the flock. Use a hoe, a square shovel, or a regular droppings board scraper. Be sure to get into all of the corners, as it is important that a thorough job be done. After the manure is removed, scatter some land plaster or road dust over the droppings boards to absorb the moisture.

The litter should be renewed before it becomes broken and dirty. Once a month should be frequent enough, although each farm has its own particular condition that might in some cases make it necessary to remove the litter oftener. All litter and droppings should be removed to some distance from the range occupied by the birds. The litter should always be bright and dry; do not use any that is musty or mouldy. The ideal litter is one which lasts long, does not pack too soon, and has a high absorptive power. Wheat, oat, rye, and buckwheat are the common straws that are most desirable. There are very good commercial litters on the market that are inexpensive. A word of caution should be given, however, to those using this kind of litter. Do not use it too long just because it is something you paid for. It is true that it stays clean longer, but do not expect one filling to last all season. When it appears to be getting old, change it. Remember, for the health of the flock, the litter cannot be renewed too often.

Poor ventilation is one of the main causes for roup and colds. Either the poultry house becomes too damp or the birds are bothered by drafts. In checking over their quarters, see that the roof, back, sides, and floor are tight. The front should permit a good circulation of air without drafts. If moisture gathers in the litter, or on the walls, open the windows more during both night and day, until the moisture disappears. On stormy days or when the temperature gets near zero, it is necessary to close the windows and other openings for a short time. The front ventilator should be kept open practically all the time when dampness is in evidence.

### Winter Rations Should Contain Cod Liver Oil

**COD LIVER OIL** should be mixed with the rations all through the winter months to supply the birds with the necessary Vitamin D that they are not able to get from sunshine because of being confined indoors. This will prevent rickets and leg-weakness and will aid them to absorb the lime which is necessary for the production of stronger eggs.

### Egg Eating

**TO CURE** the habit of egg eating, place crushed oyster shell, limestone, or some other form of lime in the ration. Egg eating is usually a result of a lack of mineral matter. Pre-

vention is the best method of handling this practice of the chickens. Also, keep enough straw in the nests to prevent the eggs from being cracked when they are dropped by the hen in laying.

### General Rules for the Use of Artificial Illumination

1. At 5:00 or 6:00 A. M. turn the lights on, automatically, or by hand.
2. Turn the lights off when there is sufficient daylight for the birds to find grain.
3. Turn the lights on at twilight, when the fowls have difficulty in finding grain in the litter.
4. Turn off the evening lights at about 6:00 or 7:00 P. M.

If you use this schedule, it should be followed regularly throughout the entire season of illumination.

The exact time of day that the lights should be turned on in the afternoon will vary from day to day according to the season and amount of sunshine.

Install a dimming device in order to enable the birds to go to roost whenever they so wish. They soon become accustomed to go to the roosts when their crops are filled.

Sometimes some of the birds will not get on to the idea of going up to their roosts, in which case the attendant should place them up there, until they get into the habit. If this is not done they will roost on the window-sills or interior fixtures. They might even stay on the floor overnight, where they are apt to catch cold.

### Green Feeds Are Necessary

**AN ABUNDANCE** of green feed is necessary at all times. A lack of it causes ill health and low production. Greens are a tonic that stimulate the appetite. They also aid the digestive tract to function properly, thereby securing for the birds a larger use from the feed consumed. Birds should be given all the greens that they can eat, once daily at a regular period. This is best given at noon or in the late afternoon. Sprouted oats is one of the best forms of greens and should be fed when the sprouts are from one to three inches in length.

### Treating Frozen Combs and Wattles

**BIRDS** with a frozen comb or wattle should be removed from the rest of the flock and these parts rubbed with carbolized vaseline or some other healing ointment, once or twice a day. Quite often, following the freezing of the wattles a quantity of serous fluid accumulates in the interior of the wattle. In such cases it is advisable to make a sharp incision with a sharp scalpel at the lowest point and allow the straw-colored fluid to drip out. Keep these birds in warm, comfortable quarters. Feed them mash and give them plenty of water and green feed.

### Grain Feeding

**THE FEEDING** of grain in limited quantities in deep litter provides exercise for the hens in that they are compelled to scratch and work to find the grain. This working increases their appetites and makes them eat more mash feed, which is necessary

**MAHOOD'S COMBINATION SINGLE COMB REDS**

**World's Champion Reds**

Mahood's Reds hold official world's record for Reds, 1459 eggs, average 291.8 eggs per bird, made at Murphysboro, Ill., Egg Laying Contest.

Also winners at world's leading poultry shows; five firsts, and champion display of entire show, St. Louis, National Poultry Show, 1931.

Write for free illustrated catalog.

**E. W. MAHOOD**  
Box AFG, 616 Lee Ave.  
WEBSTER GROVES — MISSOURI

**Vaccination adds dollars to poultry profits**

Blustery weather causes colds and roup to appear in the poultry flock. Immediate loss in egg production results. Stop roup and cold losses and the serious losses that come from associated secondary infections.

**Avian Mixed Bacterin**  
(Made Under U. S. Vet. License No. 123A)  
—A Preventive and Treatment for them all. Endorsed and recommended by farmers, poultrymen, county agents, farm bureaus, etc.

Read what Louis E. Ives of Burlington, Iowa, writes: "Flock was vaccinated and production at this time is 70%, which is 15% more than we ever recorded before."

The picture above shows how simple and easy it is to vaccinate hens (100 to 150 per hour) and increase egg production. Keep your flock healthy! Vaccinate Now. Solve your disease problem in this safe, scientific way. These prices show how inexpensive this reliable treatment and preventive is. Save money. Order now.

60 doses \$1.50; 125 doses \$2.25; 250 doses \$4.00; 500 doses \$6.50; postpaid with full instructions. Send check or money order, otherwise goods will be sent C.O.D. 10-dose syringe \$1.00.

**FREE!** This Fidelity Special Syringe absolutely free with an order of 250 doses or more, or if you prefer a \$1.00 package of White Diarrhoea Tablets. Also write for our free book on Poultry Diseases. This book has saved poultry raisers thousands of dollars.

**FIDELITY LABORATORIES, Inc.**  
1837 West Hickory Street  
OKLAHOMA CITY, OKLAHOMA

**BAINER'S JERSEY WHITE GIANTS**

Won 68 ribbons and two sweepstakes in six Official Shows in 1931, including the American Royal, Missouri State Fair, Kansas State Fair, Mid-Kansas Live Stock Show, Shawnee Fair and Springfield Fair. All Blue Ribbons excepting seven, in competition with 248 birds.

**SPECIAL DISCOUNT**  
on orders placed before January 15th. Catalog ready now.

**Bainer Poultry Farm**  
Fairview Addition OLATHE, KANSAS

**MASCOT EGG GRADER**  
FOR QUICK ACCURATE WEIGHT

No Loose Weights, RATTLING PARTS, Gears or Springs. Double graduation, 16 to 32 oz. per doz. 1 1/2 to 2 1/2 oz. per egg.

**PRICE POSTPAID \$2.95**  
Money Back Guaranteed

**PROSPECTUS MFG. CO.**  
Dept. D, 21 Melbourne Ave. S. E., Minneapolis, Minn.

for high that doe off in he is fed, a birds so do not dirty an mains c

DUS



**ORDI**  
of caus to avoi is put kind, a "bugs" complis tractor force t from t

Howe ried on his hybr Dr. R City has 25 years collected He has has com blight r These an pin sto sweet, C Some perhaps has bee He has for over on the inoculat have wi to the b up with trees du exposur a numb he thin with th to the b first nu variety the blig to the get it l The man's v the best found. through of bree can inn to depe show a



for higher egg production. A hen that does not eat enough soon drops off in her laying. If too little grain is fed, and the litter is too deep, the birds soon become discouraged and do not work. If the litter is too dirty and packed down, the grain remains on top and fails to induce

exercise, as the grain is too easily found. If too much grain is given during the forenoon, the birds do not eat enough mash. Give the morning supply in two feedings. This distributes the exercise better during the morning. Birds should go to roost with a full crop of grain.

## DUSTING WITH POWER TAKE-OFF



ORDINARILY the use of the word "dust" with its associated meanings of causing personal discomfort brings to mind something everyone likes to avoid. It is different, however, when dust in the form of insecticides is put to practical and profitable use in fighting common enemies of mankind, as shown in the accompanying illustration. Here, the "gassing" of "bugs" to protect fruit intended for human consumption is being accomplished with the use of a crawler tractor and dusting machine. The tractor not only pulls the outfit through the orchard, but also supplies the force to blow the dust, with its power takeoff and coupling shaft running from the transmission.

## BRINGING BACK THE CHESTNUT [From Page 4]

However, the work was not carried on after his death and most of his hybrids were destroyed.

Dr. Robert T. Morris of New York City has been working for the past 25 years with crosses of many species collected from all over the world. He has five at present in which he has considerable faith. They are blight resistant to a great degree. These are all from American Chinkapin stock crossed with American sweet, Chinese or Japanese.

Some of the most interesting and perhaps the most revolutionary work has been done by Dr. Zimmerman. He has been working with chestnuts for over 20 years and is proceeding on the theory that it is possible to inoculate the trees so that they will have within themselves a resistance to the blight such as nature has built up within the Chinese and Japanese trees during several thousand years' exposure to the disease. He has now a number of American varieties that he thinks compare very favorably with the Chinese in their resistance to the blight. In 1929 he picked the first nuts from the Champion. This variety when he first brought it into the blight section was so susceptible to the disease that he could hardly get it large enough to inoculate.

The great value of Dr. Zimmerman's work is that he works with the best varieties of nuts that can be found. He does not have to go through the long and tedious process of breeding up new varieties. If he can immunize trees, we will not have to depend upon the few trees that show a marked resistance. If he can

immunize trees to diseases, and I think it is certain that he has done this, he has established an exceedingly important new scientific process.

At present we have Japanese and Chinese species, and Dr. Morris' hybrids can be planted in blight sections. None of these is perfect. All will blight to a certain extent and some of the individual trees quite badly. The chestnut is important enough so that it should not be neglected. It is hardly improbable that with anything we have at present highly profitable commercial orchards could be established. It is quite certain that if small plantings are made we can, in a few years, find varieties upon which we can place considerable faith.

### BOOSTS THE HOME MARKET

J. H. LITTLE is a real peach orchardist—and a good man to merchandise good peaches. His orchards are near the city of Jonesboro in northeastern Arkansas, a region blessed with good soil and climate. From beginning to end, he emphasizes Quality and Home Marketing.

Using large space in the Jonesboro newspapers, not a housewife in the city is allowed to be in ignorance of the peaches Mr. Little has to sell.

He has the women leave their orders at a prominent flour mill in the city and delivers the following day. The fact that his orchard is cultivated properly and sprayed properly is one reason why his product is making good in the home canning market.—David I. Day.

## ... OFFICIALLY ...

The  
**S. C. White Leghorns**  
as bred at  
**England's Egg Ranch**

P. O. Box W337

Inglewood, California

**Stand at the Top**

as one of the Greatest Laying  
Strains of the present  
time.

### Highest Leghorn Pen for 1931

Having won six out of eighteen contests entered the past four years is a record never before equaled.

May we send you one of our catalogs?

— 1931 High Records —

Contest	Total Lay	Total Points (Weight)	Ave. Eggs Per Bird
Tex. Nat'l.	2925	2997.4	292.5
Arizona	2581	2756.0	258.1

Ranking 1st and 5th (all Standard Contests) in the White Leghorn breed, which leads all other breeds by a wide margin. Note average egg weight of well over 2 oz. per egg.



**ROSELAWN**  
S. C. White Leghorns

### Greatest Money Making Strain in the World Today

Roselawn is a real trapnest, pedigree breeding farm, specializing exclusively in the Barron strain Big Type English S. C. White Leghorns. We have imported High Egg Record Breeders direct from Tom Barron in England every year for eleven years. Roselawn breeding hens are big, heavy weight, top comb birds and heavy producers of eggs of the very finest quality. Great winter layers. Your success and profit is more certain with this correctly bred stock. Prices very reasonable.

### 25% Discount on 1932 Chicks and Hatching Eggs Ordered This Month

Take advantage of our big early order discount offer and save 25% on your chicks and hatching eggs. Safe delivery and livability guaranteed. This liberal discount offer gives you a chance to get real production bred stock at real bargain prices.

Send for our Free Catalog and Discount Circular

**ROSELAWN POULTRY FARM**

H. M. Tibbals & Son, Owners and Managers Route 10-P, DAYTON, OHIO

## Fishel's White Wyandottes

Win every Blue Ribbon at both the Indiana and Kentucky State Fairs, 1931. Also most of the other prizes and many specials. Buy from a man who has the stock to win with in 1931. Splendid selections in old and young birds.

**Don't Forget to Book Your Order for Early Baby Chicks**

Catalog free. The oldest firm and the best White Wyandottes in America. The best is none too good for 1931. Prices are right.

**J. C. FISHEL & SON**

CARL J. CARTER, Owner

BOX H

COLUMBUS, INDIANA

## MARCOOT'S WHITE WYANDOTTES

### WIN AT KANSAS CITY

Was Supreme in Exhibition and Production Quality

I have some excellent hens, cockerels and pullets ready to show, at attractive prices; also breeding pens. Write for Free Literature.

CHAS. W. MARCOOT

Box 171

CALDWELL, KANSAS

## INDEX TO DISPLAY ADVERTISEMENTS

The concerns whose advertisements appear listed below are equipped to give prompt and satisfactory service to the American fruit grower. Most of them issue literature that is freely at the disposal of our subscribers. It is to

the advantage of all that when writing to an advertiser you use the address exactly as it appears in the advertisement, and that you state in your letter: "I read Your Advertisement in AMERICAN FRUIT GROWER."

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## ABSORBING TRANSPORTATION SHOCKS

S. A. PHILLIPS, of Geneva, Ohio, has solved his produce transportation problem and added to his profits



S. A. Phillips with some of his strawberries.

through the installation of "air springs" on his two-ton truck. Air springs are telescoping cylinders

mounted between the steel springs and the frame of a truck or bus and which, operated by air and oil, absorb the shocks and vibrations of the roughest highways. The part attached to the frame is a rigid housing in which the piston and sliding sleeve (attached to the steel spring) move up and down.

The air spring is inflated with air, just as is a pneumatic tire, through an air valve at the top. The piston rests against the cushion of air. When a blow is delivered upon the wheel of the truck or bus it is transmitted to the spring. From there it passes to the piston and sliding sleeve, causing them to move upward, building up the air pressure sufficiently to meet and absorb the blow.

"My first idea in purchasing air springs," says Mr. Phillips, "was to improve the carrying capacity and speed of a two-ton truck. The installation of the air springs justified my idea and I found it safe to haul maximum loads of berries and produce at rapid speed.

"Our strawberry season extends over a period of six weeks and we are loaded light at the start and at the finish. Between the beginning

and the end of the season, however, we load the truck to over-capacity to meet the necessity of reaching our

damage of any kind. Our experience shows that a truck equipped with air springs will outlast one which lacks



Truck ready for market on the S. A. Phillips farm.

markets in the quickest time with the largest possible loads.

"Last season we had 800 bushels of strawberries to take to market and I can safely say that air springs enabled us to get them all to the commission houses without spoilage or

this device and will carry a load of produce to market in as good shape as when it was placed on the truck. This is not only true of strawberries but applies equally well to tomatoes, peaches, grapes and other perishables.

## SEASONABLE STYLES



FITTED SLIP

Design No. 578

The bias cut of this new slip actually shapes the figure and lends charming slowness to the outer garment. The wrap-over arrangement at the back makes it shadow proof, and gives freedom in its added width without detracting from its slenderness. Another modish point is the bias cut of the upper edge so comfortable and slimming to the neckline.

Style No. 578 is a boon to the stout woman, and will make the youthful figure appear even more youthful.

It is designed for sizes 36, 38, 40, 42, 44, 46 and 48 inches bust. Size 36 requires 2 3/4 yards of 39-inch material. Flat crepe silk, washable crepe satin and crepe de chine are popularly used.

### CONSERVATIVELY SMART

Design No. 3173

Here are lovely slenderizing lines for the matronly figure.

You'll love the new skirt cut with its clever diagonal lines to reduce hip bulk. The crossover bodice has applied band trim that is very effective and becoming, besides producing a flat line much appreciated by the larger figure.

A patterned crepe silk is an excellent medium for this model. Plain blending shade crepe is used for bands and bow. Lace is used for the tiny vestee.

Style No. 3173 is designed for sizes 36, 38, 40, 42, 44, 46 and 48 inches bust. Size 36 requires 4 yards of 39-inch material with 1/2 yard of 39-inch contrasting and 1/2 yard of 3-inch lace.

Fashioned of black crepe satin, it's stunning with white vest. Sheer dark green

patterned woollen is lovely with eggshell crepe for the tiny vest.

### CHILDLIKE CHIC

Design No. 3302

Here's a model having all the ear marks of French chic, yet is as simple and smart and as practical as any tiny girl would wish it.

Light navy blue wool persey made the original. The inset yoke is vivid red jersey. The circular skirt gives smart emphasis to the brief bodice.

Style No. 3302 may be had in sizes 2, 4, 6 and 8 years. Size 4 requires 1 1/2 yards of 39-inch material with 1/2 yard of 35-inch contrasting.

A plaid woollen in yellow and brown with plain brown is fetching. Then, again, in wool challis with white pin dots and vivid red contrasting, it's adorable.

### SMART JUNIOR WEAR

Design No. 3272

Here's a clever little frock favoring the smart idea of contrast so popular with the grown-ups this season. It can be made with long or short sleeves. A wrap-over side-closing effect makes it individual.

Two shades of wool crepe is an excellent scheme for its development. Its inspirator combined a light navy blue with pale blue. It's a darling dress too for "dress-up" occasions fashioned of brown velvet with pastel-red crepe silk contrast. Another idea is green tweed mixture with yellow plain woollen. Or it may be made of one material, if desired.

Style No. 3272 may be had in sizes 6, 8, 10, 12 and 14 years. Size 8 requires 1 1/2 yards of 39-inch material with 1 yard of 35-inch contrasting.



3302

3272

## PERSIMMON GROWERS ASSOCIATION CONTROLS BULK OF CROP

THE JAPANESE persimmon industry, newest of southern California's horticultural specialty activities to develop under co-operative market-

Last year, the Southern California Persimmon Growers' Association controlling the bulk of the production in this area, where 1300 acres are now in bearing, shipped 68 cars into the East, and marketed 51 cars in Los Angeles.

While only \$20 a ton was received by growers for their fruit, it was recognized early in the season that high prices were out of the question, and that every means of getting the fruit into consumption should be taken. A very high grading standard was adopted, and 20 per cent of the fruit delivered to the packing houses was culled out. The resultant high quality pack brought five cents a pound on the Los Angeles market, while routine, independent packs sold for two cents a pound. Including outside fruit, none of which was shipped East, the Los Angeles market took 120 cars of persimmons in 1930.

After a trip into eastern markets during the deal, A. J. McFadden, president of the association, reported that association fruit is finding an increasing number of outlets. The selling service of the California Fruit Exchange is used by the association in the East.



The Hachinja variety of oriental persimmon, most popular commercial sort in California.

ing stimulus, is definitely out of the experimental stage, and has taken a recognized place in the agricultural program of the Golden State.

## SAVING MAN POWER IN SPRAYING



I AM SENDING you pictures taken of the Cletrac drawing a sprayer in our orchards. They show E. L. Case driving the tractor with one foot on the steering wheel or sitting on the wheel using a spray gun. Our spraying is all done as the pictures represent, with two men doing the work of three. —J. Rowland Fitzgerald, New York.

Patterns may be secured by mail, postage prepaid, at 15 cents each from FASHION DEPARTMENT, AMERICAN FRUIT GROWER, 200 Fifth Avenue, New York, N. Y. Be sure to state size required. Enclose 10 cents additional for copy of Winter Fashion Magazine (15 cents where no pattern is ordered).



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